

REMARKS

Claims 1-29, 31, 33-35, 37-41, 43-47, 49-53 and 55 are pending in the application.

Claims 1-29, 31, 33-35, 37-41, 43-47, 49-53 and 55 stand rejected.

Claims 1, 6, 11, 16 and 21 have been amended.

Claims 31, 37, 43, 49 and 55 have been cancelled.

Amendments to Drawings

Applicants thank the Examiner for the Examiner's careful examination of the instant application. The Drawings were objected to for failing to comply with 37 CFR 1.84(p)(5) for failing to include various reference signs mentioned in the description. Fig. 1, Fig. 2A and Fig. 2B have been amended to address the Examiner's concerns.

Formal Matters

The Specification was objected to because of an informality. The Specification has been amended to address the Examiner's concerns. No new matter is added thereby.

Rejection of Claims under 35 U.S.C. §101

Claims 1-5, 26-29 and 31 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Applicants respectfully traverse this rejection.

As an initial matter, Applicants respectfully submit that the above rejection is moot with respect to claim 31, which has been cancelled.

Applicants respectfully submit that the claimed invention is not simply the manipulation of an abstract idea and is not merely a representation of data, but is indeed statutory subject matter. Not only does the claimed invention provide useful, concrete

AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings includes changes to Fig. 1, Fig. 2A and Fig. 2B. This sheet replaces the original sheets including Fig. 1, Fig. 2A and Fig 2B. Fig. 1, Fig. 2A and Fig. 2B have been amended to conform more clearly to their corresponding detailed description.

Attachment: Replacement Drawing Sheets

and tangible results, as well as advancing the technological arts, but (as can be seen in claims 1-5 and 26-29) is drawn to a method that arranges objects in a class hierarchy, which Applicants respectfully submit is statutory subject matter. This method of the claimed invention is statutory subject matter because objects are instantiations, which are generated and manipulated by a computer. Therefore, arranging objects in a class hierarchy is a method performed by a computer, and is not merely a representation of data.

As to the question of this method being simply an abstract idea, Applicants note that any step-by-step process, whether it is electronic, chemical, or mechanical, involves an “algorithm” in the broadest sense of the term. *See State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1374-75, 47 USPQ2d 1596, 1502 (Fed. Cir. 1998), cert. denied, ---U.S.--- 119 S. Ct. 851 (1999). The Supreme Court noted that “unpatentable mathematical algorithms are identifiable by showing that they are merely abstract ideas constituting disembodied concepts or truths that are not ‘useful.’ ... To be patentable an algorithm must be applied in a ‘useful’ way.” *Id.* At 1373, 47 USPQ2d at 1601. Applicants therefore respectfully assert that arranging objects in a class hierarchy produces useful, tangible results (e.g., arranged or rearranged objects).

Applicants therefore respectfully submit that the invention as claimed in claims 1-5 and 26-29 is statutory subject matter under 35 U.S.C. §101.

Rejection of Claims under 35 U.S.C. §112

Claims 6-10, 33-35 and 37 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. As an initial matter, Applicants respectfully submit that the above rejection is moot with respect to claim 37, which has been cancelled. The Office Action asserts that claim 6 contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Claim 6 has been amended to address the foregoing concern. As amended, the pertinent portion of claim 6 recites, “the second domain value set is smaller than the first domain value set.” Amended claim 6 finds support in the specification on pages 9 and 10. Applicants therefore respectfully submit that independent claim 6, as well as claims 7-10 and 33-35, which depend on claim 6, comply with the written description requirement. Applicants therefore respectfully request withdrawal of the rejections based upon 35 U.S.C. §112.

Rejection of Claims under 35 U.S.C. §102

Claims 1-29, 31, 33-35, 37-41, 43-47, 49-53, and 55 stand rejected under 35 U.S.C. §102(b) as being anticipated by Pasi et al., “Calculating Attribute Values Using Inheritance Structure in Fuzzy Object-Oriented Data Models” (Pasi). Applicants respectfully traverse this rejection.

As an initial matter, Applicants respectfully submit that the above rejection is moot with respect to claims 31, 37, 43, 49 and 55, which have been cancelled.

As amended, claim 1 recites, in pertinent part: “a method of arranging objects comprising...associating an item with a class within the class hierarchy such that all entries of a record of the item are non-empty.” Applicants respectfully submit that Pasi does not show, teach or suggest the foregoing limitation of claim 1.

Applicants respectfully submit that the pertinence of the cited reference that the Examiner has relied upon has not been clearly explained as required by 37 C.F.R. § 1.104(c)(2). The Office Action references column 1, 2nd paragraph of page 562 of Pasi and states that Pasi teaches therein “a method of arranging objects of claim 1, further comprising: ‘associating an item with a class within the class hierarchy such that all entries of a record of the item are non-empty.’” The Office Action does not clearly explain, and it is not apparent, which component(s) of Pasi’s disclosure anticipate the record claimed in claim 1 (previously claimed in claim 31). Nevertheless, Applicants have made every attempt to respond to the rejections recited in the Office Action.

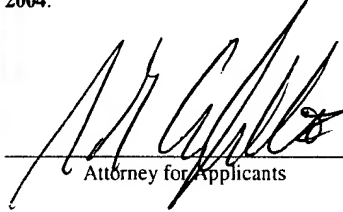
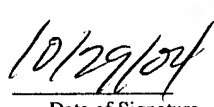
In column 1, 2nd paragraph of page 562, Pasi discusses sub-classes, super-classes and domains of classes, but does not disclose a record of an item, as claimed in claim 1. Furthermore, Pasi does not disclose that all entries of the record are non-empty, as further claimed in claim 1.

Applicants therefore respectfully submit that claim 1 clearly distinguishes over Pasi, taken alone or in combination with skill in the art. Applicants submit that these arguments apply with equal force to independent claims 6, 11, 16 and 21. Applicant therefore respectfully submits that independent claims 1, 6, 11, 16 and 21, as well as claims 2-5, 7-10, 12-15, 17-20, 22-29, 33-35, 38-41, 44-47, 50-53 which depend on claims 1, 6, 11, 16 and 21, are also allowable for at least the foregoing reasons.

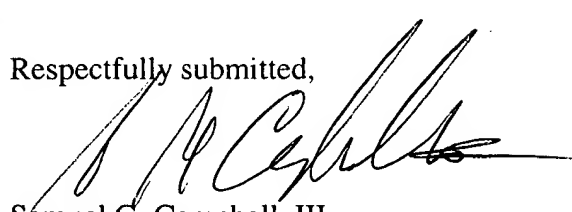
Applicants therefore respectfully request withdrawal of the rejections based upon 35 U.S.C. §103(a). Accordingly, Applicants respectfully submit that claims 1-29, 33-35, 38-41, 44-47 and 50-53 are in condition for allowance.

CONCLUSION

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5084.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 29, 2004 .	
	
Attorney for Applicants	Date of Signature

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Attorney Docket No.: M-11555 US
First Inventor: Thomas M. Rothwein
Serial No.: 09/851,278
Filed: May 8, 2001
Title: EXTENDABLE ATTRIBUTES OF OBJECTS

ANNOTATED SHEET SHOWING CHANGES

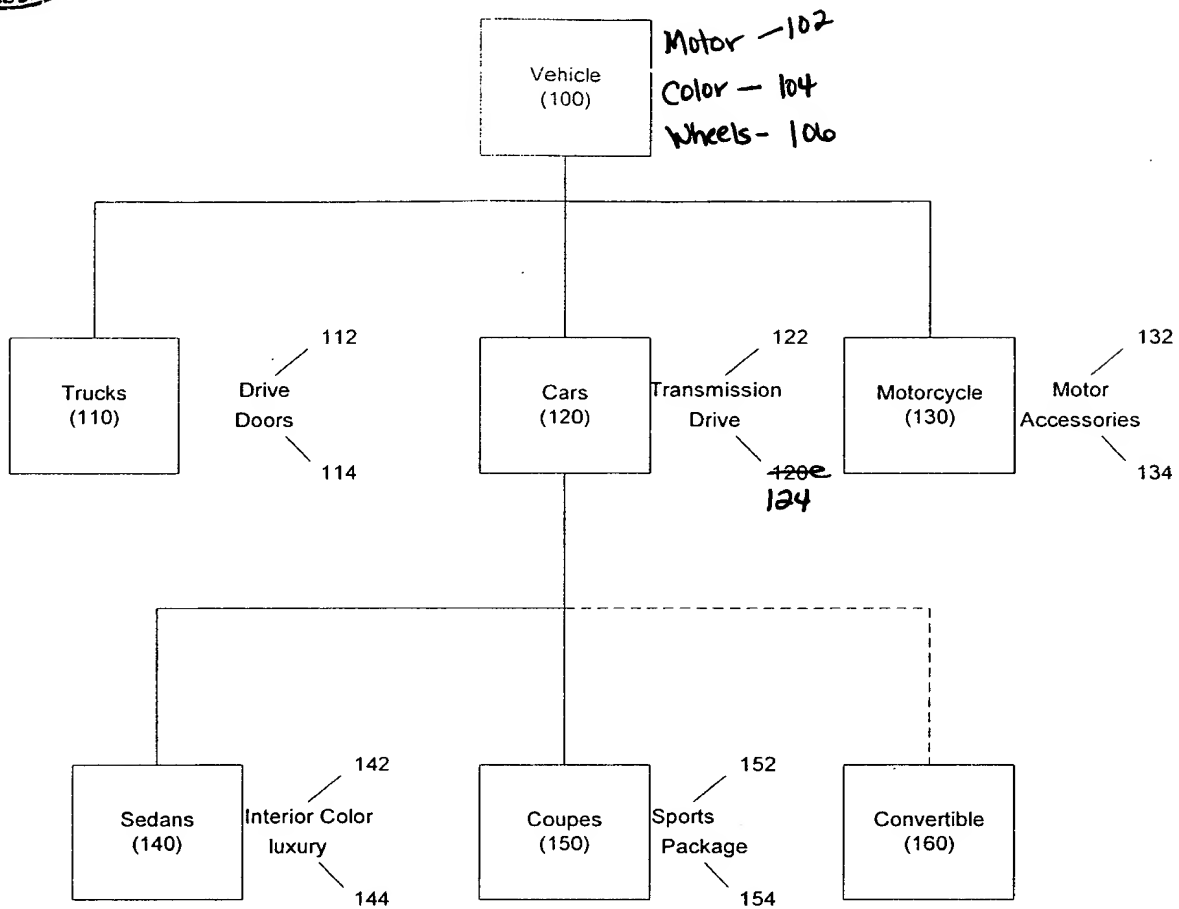
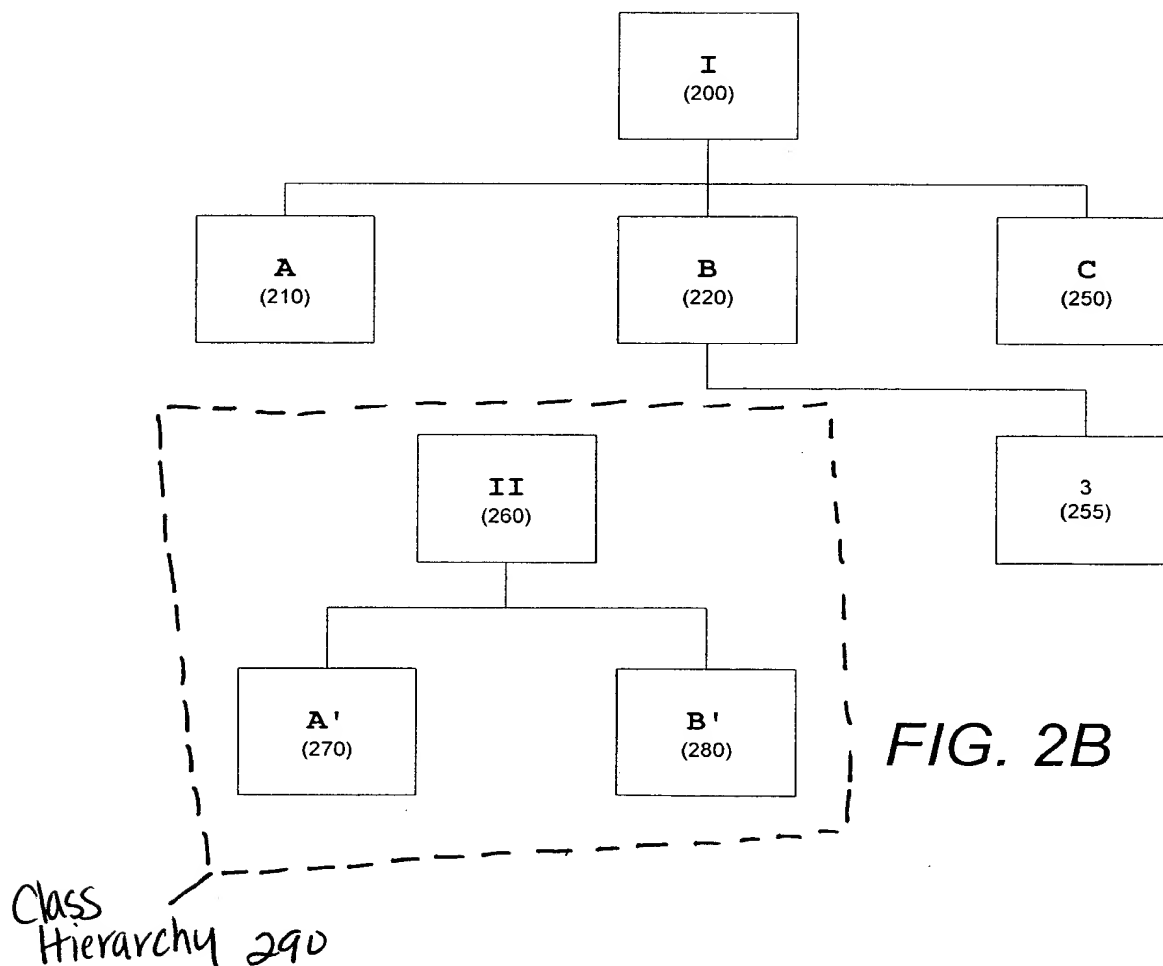
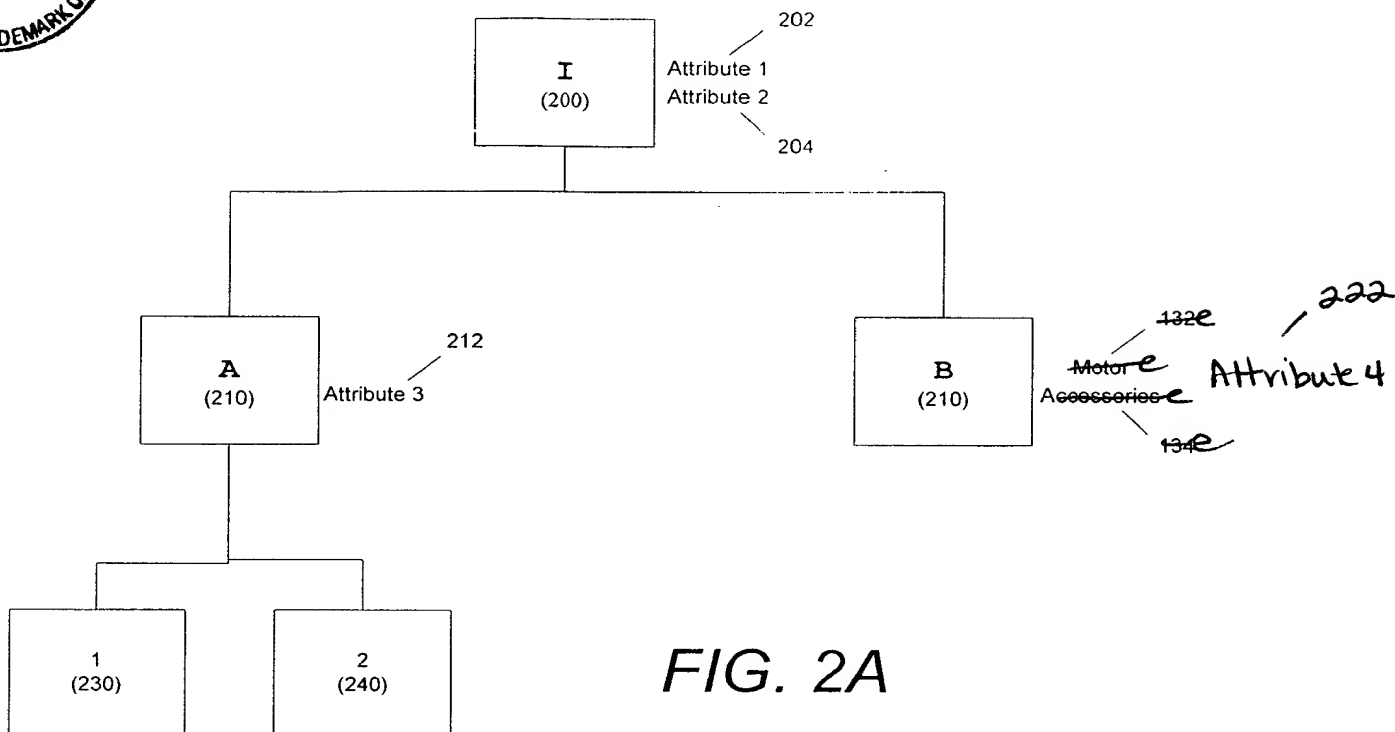


FIG. 1



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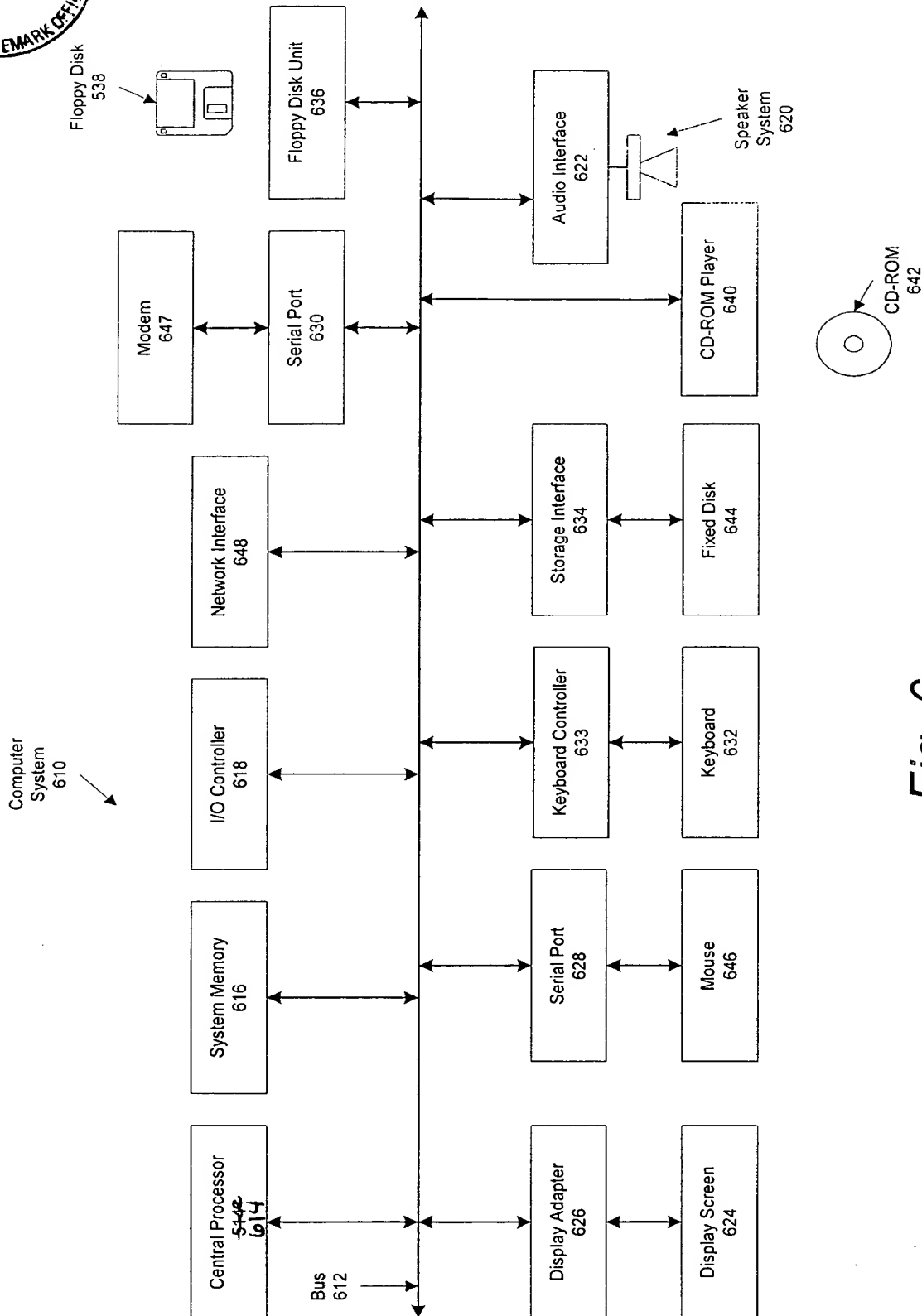


Fig. 6



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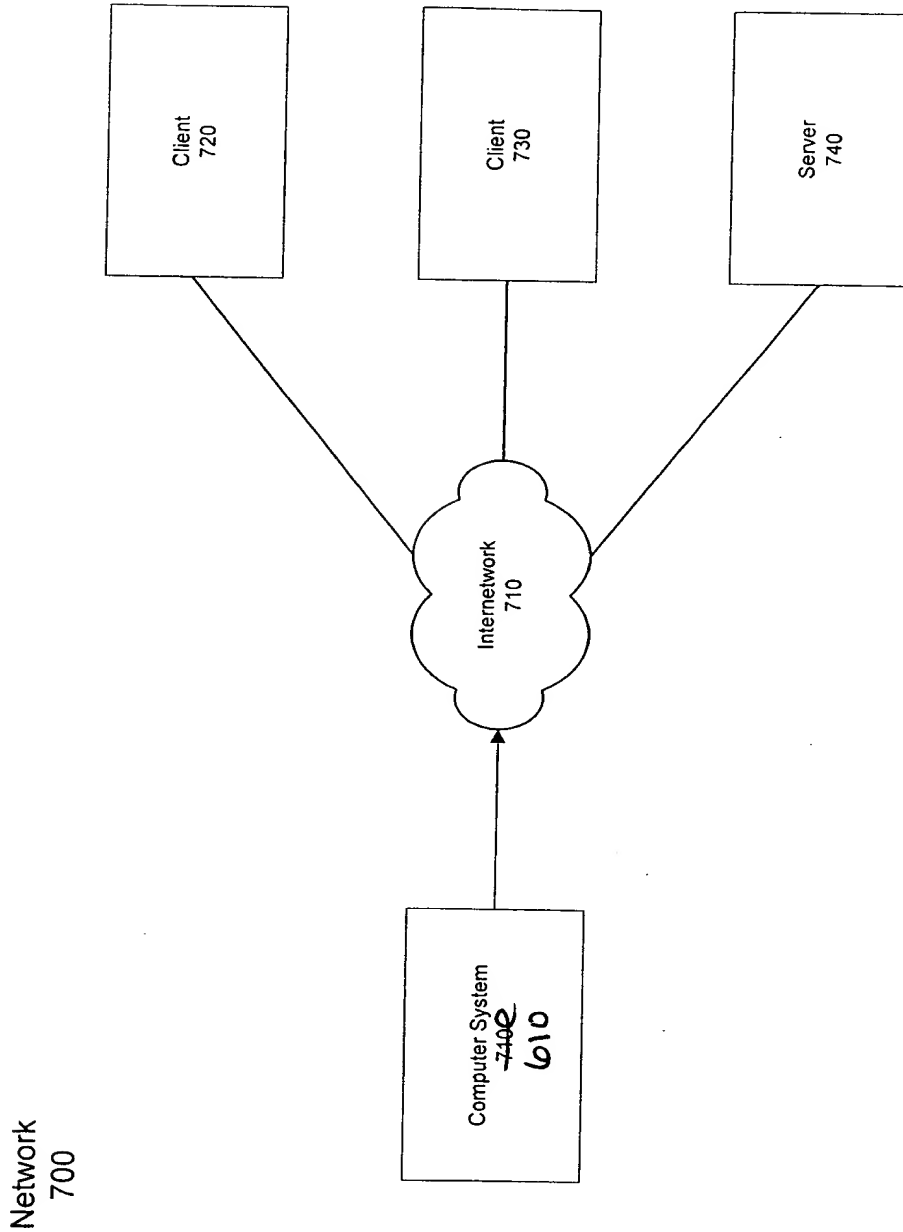


Fig. 7